

IN THE DRAWING:

Please substitute the enclosed four replacement sheets of drawing for the corresponding original sheets, which bear Figs. 1, 2, 3 and 4.

### REMARKS

This application has been reviewed in light of the Office Action dated December 3, 2004. Claims 2-9, 12, 13, and 15 are presented for examination. Claims 1, 10, 11, 14, and 16-20 have been canceled, without prejudice or disclaimer of subject matter. Claims 2, 12, 13, and 15, which are now the independent claims, have been amended to define more clearly what Applicants regard as their invention. Favorable reconsideration is requested.

Applicants note with appreciation the indication that Claims 2-9, 12, 13, and 15-17 would be allowable if rewritten so as not to depend from a rejected claim and with no change in scope. Since Claims 2, 12, 13, and 15 have been so rewritten, these claims are now believed to be in condition for allowance.

Figures 1-4 have been labeled as prior art in the replacement sheets submitted herewith, as requested by the Examiner.

Claims 1, 10, 11, and 18-20 were rejected under 35 U.S.C. § 102(a) as being anticipated by supposedly admitted prior art, i.e., the Background section of Applicants' specification. As noted above, allowable Claims 2, 12, 13, 15 have been rewritten in independent form, and Claims 1, 10, 11, 14, and 16-20 have been cancelled. Thus, all of the rejections are now moot. However, Applicants strongly disagree with the basis for these rejections and therefore would like to make the following comments in this regard.

Claim 1, as it stood prior to being cancelled in this Amendment, was directed to a photoelectric conversion device having a plurality of pixel cells, each of which includes a photoelectric conversion element, a field effect transistor having a gate

area for storing signal charge generated by the photoelectric conversion element, and a source-drain path for outputting a signal corresponding to the signal charge stored in the gate. Claim 1 further recited a first power supply line for supplying electric power to the field effect transistor and a first switch connected between the field effect transistor and the first power supply line.

In one significant aspect, Claim 1 recited that when a reset voltage for resetting the gate of the field effect transistor is  $V_{sig0}$ , a threshold voltage of the field effect transistor is  $V_{th}$ , current flowing through the field effect transistor is  $I_a$ , a voltage applied via the first power supply line is  $V_{cl}$ , and a series resistance of the first switch is  $R_{on}$ , each pixel cell satisfies a condition determined by:

$$V_{cl} - R_{on} \times I_a > V_{sig0} - V_{th}$$

It is stated in the Office Action that this relationship is inherently disclosed in the conventional circuits discussed in the Background section of the present application.

The Examiner's position is apparently based on the following:

[T]he prior art operate within the linear, however not for all voltages, the disclosed prior [art] still operates under the linear region which means the above condition is met.

Office Action at page 3. Thus, as Applicants understand it, the Examiner believes that the claimed relationship is inherently anticipated, because the conventional devices may operate in the linear range. However, this view of inherency is not in accordance with the law or the practice of the U.S.P.T.O., as discussed, for example, in the following excerpts from the M.P.E.P.:

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993)(reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art).

M.P.E.P. § 2112(IV)(emphasis in original). Moreover:

To establish inherency, the extrinsic evidence “must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill.”

M.P.E.P. § 2112 (quoting *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999)(citations omitted))(emphasis added).

In fact, as is clear from Applicants’ specification, conventional circuits do not necessarily operate in the linear range. Indeed, this is the central problem Applicants sought to address with the present invention:

The conventional source follower does not always operate in the region where the above equation (1) holds. Therefore, in the present invention, the photoelectric conversion device is designed so that a MOS transistor of the source follower always satisfies the equation (1).

Specification at page 21, lines 4-9 (this passage is of course merely exemplary and in no way limits the scope of the claims). Furthermore, the Examiner apparently recognizes that the conventional devices do not necessarily operate in the linear range, as he states that they operate in the linear range, but “not for all voltages.” Office Action at page 3.

Accordingly, it is respectfully submitted that the Background section of Applicants’ specification does not teach or suggest all of the features of Claim 1, either

inherently or explicitly, and this subject matter is therefore submitted to be patentable.

Nevertheless, to expedite prosecution, Applicants have cancelled Claim 1 and incorporated the subject matter of that claim in Claim 2, which has been indicated as allowable.


Claims 12, 13, and 15, as noted above, have also been rewritten to incorporate this subject matter.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

  
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